UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/032,991	12/26/2001	Anne Lafage	PHFR 000153	9234

24737	7590	11/15/2004

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EXAMINER
SETH, MANAV

ART UNIT	PAPER NUMBER
2625	

DATE MAILED: 11/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	10/032,991	LAFAGE ET AL.
	Examiner	**Art Unit**	
	Manav Seth	2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/26/2001*.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Claim Objections

1.   Claim 3 is objected to because of the following informalities:

Claim 3 should include "stored on a computer readable medium" between

"A computer program product" and the rest of the claim to clarify the claim language and

to preclude a possible non-statuary subject matter rejection.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 1, 2 and 3 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Miro et al, IEEE Publication, 1997, "A VLSI architecture for image

geometrical transformations using an embedded core based processor", and further in

view of Edirisinghe et al, IEEE Publication, 2000, "Shape Adaptive Padding for MPEG-

4".

- Claim 1 recites "a method of composing an image, the method comprising
  a step of mapping a set of image sample values from a departure space to
  an arrival space in accordance with a geometrical transformation, the

method comprising the steps of computing a zone in the departure space by applying the inverse geometrical transformation to a zone in the arrival space covering a group of image samples". Miro discloses in figure 2 and lines 21-40 on page 88 and lines 4-7 on page 89 an inverse geometrical transformation applied to a macro-block (zone) in the destination (arrival) space where a macro-block consists of a group of image pixels (image samples) and this inverse geometric transformation results in computing a macro-block (zone) in the source (departure) space. Miro also teaches (page 88, lines 21-40) that each pixel in the source (departure) image has a certain coordinate (x, y) position. Miro does not teach of establishing a group of Boolean input values for the zone in the departure space composing the image from these Boolean input values.

Edirisinghe in 2nd paragraph of column 2 on page 514 discloses Video Object Plane. Edirisinghe discloses in last paragraph of column 2 on page 514 "the shape information of a VOP (video object plane) is coded (as binary Alpha planes - pixels inside VOP are represented by 1's and rest by 0's (Boolean input values)) prior to coding motion vectors based on the VOP image window macro-block grid" which satisfy the claim 1 limitation "establishing a group of input values for the zone in the departure space, the group of input values comprising Boolean values, a Boolean input value having a certain position (X_d, Y_d) in the departure space and designating the other values having the same position as being non-valid

if the position is outside the set of image sample values". Edirisinghe also

discloses from last paragraph of column 2 of page 514 and figure1 in

further continuation of previous argument "In subsequent processing step,

only the motion and texture information for the macro-blocks belonging to

the VOP image are coded. These include the interior (standard) macro-

blocks as well as the boundary (contour) macro-blocks." which satisfy the

claim 1 limitation "composing the group of image samples from the group

of input values, the Boolean values preventing the input values designated

as being non-valid from contributing to an image sample" as recited in

claim 1.

Therefore, it would have been obvious to one having ordinary skills in

the art at the time of the invention was made to combine the methods of

Miro and Edirisinghe. One would have been motivated to use Miro's

method of inverse geometrical transformation of the image as the first step

and further adding additional steps as disclosed by Edirisinghe, to

compose the image because this would allow for the system to control

what data is to be used and what won't, thus creating better final results.

- Claim 2 has been analyzed and rejected as per claim 1. Claim 2 recites a
  device, which comprises of method steps of claim 1, and is thus met by
  the combination of Miro and Edirisinghe as applied to claim 1 above.

- Claim 3 has been analyzed and rejected as per claim 1. Claim 3 recites a
  computer program, which comprises of method steps of claim 1, and is

thus met by the combination of Miro and Edirisinghe as applied to claim 1 above. Miro discloses of program code to be written for the operation in lines 1-3 of page 10. Edirisinghe discloses the method steps to be an algorithm in last paragraph of column 2 of page 6, and apparently an algorithm can be used as software program.

Claim Rejections - 35 USC § 112

4.   Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- The body of claim 2 recites the same method steps as in claim 1, but it does not recite any apparatus limitations though the preamble of claim 2 indicates it is directed to an apparatus. Claim 2 does not clearly point out or distinctly claim the apparatus nor does it recite any actual apparatus limitations. Therefore, it is unclear if the claim is intended to be an apparatus or method.

Conclusion

5.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- Kozato et al, IEEE publication, 1992, "Geometric Transformations in a lazy functional language" discloses of using functional programming for geometrical transformation.

- Erol et al, IEEE publication, 2000, "Video Object summarization in the MPEG-4 compressed domain" discloses of video object plane coding.

- Shen et al, IEEE publication, 1999, "A new padding technique for coding of arbitrarily-shaped image/video segments" discloses of padding techniques in a block.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Manav Seth whose telephone number is (703) 306-4117. The examiner can normally be reached on Monday to Friday from 8:30 am to 5:00 pm.
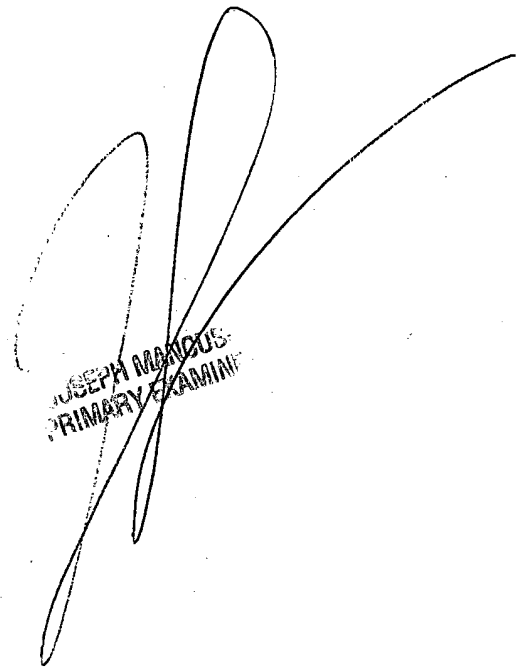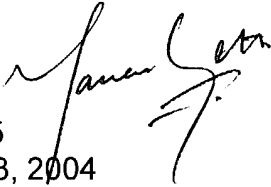
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Mancuso, can be reached on (703) 305-3885. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

Manav Seth
Art Unit 2625
November 03, 2004